

When a complete stoppage occurs, it is impossible, by inspection, to ascertain at what particular point on the line the impediment exists: it is therefore necessary to sink trial holes at certain distances, to rip up the pipes, and probe with flexible rods, in order to discover the seat of obstruction. When these trials take place, or when the tubular drains are opened for the purpose of forming junctions for house drains or branches, they are uniformly found to be more or less choked, leading to the conclusion that in a short time they must necessarily be replaced by brick sewers of sufficient sectional area to allow them to be inspected, and to employ manual labour for the removal of the deposit.

MURATORE.

BOOKS.

An Essay on the Origin and Development of Window Tracery in England. By E. A. FREEMAN, M.A., Author of the "History of Architecture," &c. Oxford and London: J. H. Parker. 1851.

SOME papers on window tracery, read before the Oxford Architectural Society by Mr. Freeman, during 1846 and 1848, have here grown into a goodly volume, and the ingenious and industrious author mentions the dates in his preface, to obviate any suspicion of rivalry with Mr. Sharpe's work on the same subject. It contains 366 examples in outline, simply showing the forms of the tracery; and the main endeavour of the book is to obtain a "systematic arrangement and nomenclature of the numerous divisions and subdivisions of Gothic tracery." In his main classification Mr. Freeman assumes the same four divisions which he took as the groundwork of the Gothic portion of his "History,"—viz., Lancet, Geometrical, Flowing, and Perpendicular.

At the writer says,—"Among all the beautiful and majestic features which are so conspicuous in the architecture of the middle ages, a rank inferior to none must be assigned to the varied and graceful forms of its window tracery. The window itself, in the prominent position which it holds in the most perfect forms of Gothic art, is a feature peculiar to that style of architecture. In the Grecian, and even the Italian style, the window can hardly be looked upon as any thing but an intruder; a necessary evil, which, on account of physical requirements, cannot be dispensed with, but which it is extremely difficult to bring into harmony with the rest of the building. Even in the best Italian churches,—for in secular erections the fault is hardly so conspicuous,—the windows are for the most part little better than eyesores. In Romanesque architecture, the windows enter far more into the general composition of the building, and are often highly ornamental features; but they are still comparatively small and unimportant, and are perhaps the last thing taken into account in judging of the merit of a design. It was reserved for the Gothic architect to assign to a portion of his building so physically indispensable, its fitting and natural place as the most important and characteristic feature of the exterior."

It follows that the traces of each successive change in Gothic architecture are deeply impressed upon the window, and there the main divisions of the style are most easily recognizable. But while this is the case, we agree with the author in saying that "no inquiry can well be one of greater difficulty than to unravel the different shapes which that tracery actually assumed."

Whether or not the study, beyond a certain point, is worth the pains to the practical architect, or is calculated to advance the art of architecture amongst us, may be a question.

Emblems of Saints; by which they are distinguished in Works of Art. By the Rev. F. C. HUSENBETH. London: Burns and Lambert. 1850.

THE ostensible object of Mr. Husenbeth's manual is to enable tourists and lovers of archaeology to identify the holy persons of past times represented in painting and sculpture. It is divided into two parts; the first giving

the name of the personage, and the date of his death, with the emblem with which he is found represented; and the second part giving the emblems alphabetically, with the names of those with whom they are usually associated.

The Commercial Aspect of the Great Exhibition in 1851. By Mr. W. FELKIN. Hall and Virtue, London.

THIS very able pamphlet of thirty pages should be circulated by those who desire to remove any doubts which may exist as to the goodness of the results of the Great Exhibition. The author of it, Mr. Felkin, is mayor of Nottingham.

In answer to those artisans who think that the profits which support retail trade are a needless tax laid upon themselves, he has the following paragraph:—

"The silk of China is woven in Coventry, and sold wholesale in New York; retailed amongst a thousand other articles in New Orleans; and consumed by a neighbouring planter's wife, as a ribbon attached to her dress. That American planter grows cotton wool, which is exported and woven into cloth in Manchester. This cloth finds its way into the interior of Bengal; and is retailed by a trader, who probably gives two seasons' credit upon the sale; and may be paid for it at last partly in produce, which will be sold for food in the English market ten thousand miles off. A halfpenny worth of meal from America, a halfpenny worth of coffee from Jamaica, a halfpenny worth of sugar from Brazil, are sold at the same humble counter, to the occupant of a neighbouring garret in Saint Giles's. A chandler's shop in the dirtiest, darkest thoroughfare of the outskirts of London or Limerick, cannot exist without supplies from every quarter of the globe. A respectable country grocer keeps six to seven hundred articles in his stock,—a country haberdasher, fourteen or fifteen hundred different kinds of goods,—a country ironmonger, four or five thousand distinct articles. These particulars may serve to show the often unthought of, but wonderful diversity of human wants and wishes; and the equally admirable arrangement for their supply. Each tool, implement, and article of food, clothing, and furniture, comes from a different set of hands to every other; and the selection, combination in stock, and disposal at suitable times and in the needful quantities, is the office and operation of retail trade."

MISCELLANEA.

ORDNANCE SURVEY OF SCOTLAND.—The slow progress of this national work is a subject of great dissatisfaction in Scotland at the very moment when the intermeddling of the Ordnance with the livelihoods and businesses of local surveyors in England might lead any rational being to suppose that they had already used up all such national employment, and were anxiously waiting for more. It appears from an article in the *Scotsman*, showing how "scandalously" the survey of Scotland has been neglected, that "as the present rate of progress, fifty years would be necessary for its accomplishment;" so that five times the present force might have the most rapacious of appetites for work more than satisfied. The subject has been under consideration in the Royal Society of Edinburgh. A committee of the latter, appointed for the special purpose, has issued a circular to the conveners of counties and magistrates of burghs, showing the necessity of prosecuting the survey with greater vigour, and suggesting that the county and burgh constituencies should memorialise the Government, and, in particular, press the subject on the attention of the members of both Houses of Parliament connected with Scotland.

RESTORATION OF TREPRIW CHURCH.—At about ten miles from Conway, Carnarvonshire, celebrated for its time-honoured castle and for one of those stupendous structures of modern art, at once the pride and wonder of the present age, is situated the village of Trefriw, with its well-known mineral waters of Caecoch. In this village the small, but ancient church, has lately been undergoing consider-

able repairs and restoration. The interior of this venerable building has been renovated, the mullions in the windows restored, the buttresses rebuilt. To the east gables have been added, new pinnacles and a bell cot, with an entrance porch on the south, and vestry on the west. The interior has been fitted with open benches, having carved oak ends, altar piece, and railing, pulpit, &c., principally of oak, and the roof thrown open to the church, with framed trusses, &c. The works were executed from plans furnished by Mr. George Kennedy, of London.

THE ARCHITECTURAL ASSOCIATION.—At an ordinary meeting of the Architectural Association on Friday evening, the 14th March, a paper was read by Mr. Arthur Hilling, entitled "The Coloured Decorations of Gothic Architecture," in which the several methods used were described at considerable length, numerous instances being referred to in the different churches of England, of many decorations of which there were illustrations exhibited. The lecturer contended for the application of colour over every part of the interior of ecclesiastical buildings. In the discussion which followed, the opinion was expressed by several of the members that it was in the decline of Gothic architecture alone that every portion was brilliantly coloured, the earlier examples being more subdued; and that when painted windows were used, the walls which could not vie with their brilliancy should be treated in a much simpler manner. The paper for the next ordinary meeting, March 29, was announced to be by Mr. Soppitt, on "English Architecture as it is."

NEW PATENTS.—C. W. Topper, Oxford-terrace, Middlesex, and Albemarle Place in Mers de Normandy, of Dalston—improvements in galvanised iron; C. Cosper, Southampton-buildings—improvements in moulds for electro-metallurgy; G. A. Buchholz, Norfolk-street, Strand—improvements in motive power and in propulsion; D. F. Masirata, Golden-square—a new mechanical system with compressed air, adapted to obtain a new moving power; W. Beadon, jun., Taunton—improvements applicable to the roofing of houses, buildings, and other structures; H. F. Marie de Pons, Paris, improvements in constructing roads and ways, and pavements of streets, and the ballast of railways.—*Mechanics' Magazine.*

Bristol Foreign Timber Trade.—In 1848, the importation was 67,958 loads, which fell in 1849 to 53,192; but in 1850 it sprang up to 71,481 loads.

REFORM OF OUR NATIONAL COSTUME.—It will certainly be no easy task to design a substitute for our present dress, likely to be generally adopted; but if we look back and see what great alterations have been made from time to time, it will be evident to all that the thing may be done. I would only instance the abandonment of the cocked hats. I am not old enough to recollect how it was accomplished, but I do recollect one or two old gentlemen who wore it to the end of their days. However, as there may now be said to be little or no difference between the dress of the old and the young, I do not look for many recruits in the alterations we are now talking of. The only difficulty, therefore, on my mind is, what is the alteration to be? and here I must echo your correspondent "Amateur," that this must come from the artists themselves, and that they must not only give the design, but set the example. I beg, therefore, to call on those who signed the memorial advocating the change, to let us know what they would wish us to do; and as they say themselves the change at first need not be very violent, I feel sure this example will be followed generally—by the young, because they are naturally fond of change,—by the old, that they may still appear young, which I believe they are also fond of. A lady to whom I was reading the letter of "Amateur," begs me to ask why the male costume only should be altered? She says she is conscious that her bonnet is as ugly as our hats, and that there are many parts of her costume equally susceptible of alterations for the better as any part of ours.—*ANOTHER AMATEUR.*

* As a previous (cheap) meeting a paper was read on another branch of the same subject by Mr. Rowley.